

Summary. The author reports on the progress on Shannon's old problem of finding the best way to pack billiard balls in  $n=2WT$  dimensions. Thanks to the efforts of a number of people, we now have reasonably good packings in perhaps the first 64 dimensions. Many-but not all-of the new constructions make use of codes, although we now have to allow codes over rings as well as fields.

[Based on the paper N. J. A. Sloane, The Sphere Packing Problem, presented at International Congress of Mathematicians, Berlin, 1998.

For the full text see Proceedings Internat. Congress Math. Berlin 1998, Documenta Mathematika, III (1998), pp. 387-396;  
<http://www.mathematik.uni-bielefeld.de/documenta/xvol-icm/13/13.html> ]